UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SONOS, INC.,

Plaintiff,

v.

GOOGLE LLC,

Defendant.

No. C 20-06754 WHA
No. C 21-07559 WHA

(Consolidated)

MEMORANDUM OPINION RE SONOS'S DAMAGES THEORY

INTRODUCTION

This memorandum opinion explains an oral ruling that struck a major part of plaintiff's damages theory before jury deliberations began.

Sonos, Inc. sued Google LLC for patent infringement. Google sued Sonos for a declaratory judgment. The related actions were consolidated for trial, which concluded two weeks ago.

The final pretrial order had deferred ruling on two of Google's motions *in limine*, cautioning that there were "serious questions about Sonos's damages theory and associated opinion," but allowing Sonos to put on the contested evidence "with the understanding that the undersigned may strike it from the record, tell the jury to disregard it, and grant one of these motions *in limine* under Rule 50, if appropriate, having benefitted from hearing the evidence and cross-examination" (Dkt. No. 660 at 2). That is ultimately what happened.

To the extent stated herein, Google's first motion *in limine* was **GRANTED**, and Google's second motion *in limine* was **DENIED AS MOOT**.

STATEMENT

Sonos offered Mr. James Malackowski as an expert to testify regarding its claim for damages for Google's infringement of the two remaining patents-in-suit, U.S. Patent Nos. 10,848,885 and 10,496,966. These patents cover technology for customizing and saving overlapping groups of smart speakers or other "zone players" according to a common theme, and then later invoking such groups, called "zone scenes," on demand. Whereas the '885 patent claims the technology from the perspective of a zone player (*e.g.*, a smart speaker), the '966 patent claims the technology from the perspective of a computing device that controls at least three zone players (*e.g.*, a smart phone). As such, the accused products and requested damages differed. With respect to the '885 patent, Sonos accused Google media players (*e.g.*, a Google Nest Mini speaker). With respect to the '966 patent, Sonos accused all smartphones and other computing devices that have or had the Google Home application installed (*e.g.*, an iPhone with Google Home).[1]

To calculate damages, Mr. Malackowski assumed that Sonos and Google would have used a subscription price of a third-party application offered on the Google Play Store in hypothetical patent licensing negotiations, apportioning this price to arrive at a hypothetical royalty. Specifically, he relied upon the opinion of Sonos's technical expert, Dr. Kevin Almeroth, that a free third-party scripting application could provide technology that was comparable to the claimed invention (Malackowski Rpt. 80; Tr. 1120:21–24, 1125:23–1126:1). Because a user of this application eventually had to pay for an add-on subscription in order for the application to provide the ostensibly comparable technology, Mr. Malackowski proceeded to use an optional monthly subscription price as a starting point for calculating a royalty,

[1] At trial, contrary to Sonos's position, the undersigned ruled that the mere installation of the Google Home application on a computing device did not itself infringe, and that Google was incapable of infringing the '966 patent unless the accused products were networked with at least three zone players that might be added to overlapping zone scenes using Google Home (Dkt. No. 762 at 15; Tr. 1403:5–11).

apportioning downward to account for incomparable features and *Georgia-Pacific* factors (Malackowski Rpt. 84–90, 94–124; Malackowski Reply Rpt. 24; Tr. 1125:17–1126:8, 1128:3–8, 1134:13–1137:4). From a $1.99 monthly fee charged to some premium users of a third-party application, Mr. Malackowski derived a $90 million damages award, mostly attributable to infringement of the '966 patent.[2]

This third-party application is called If This Then That, or IFTTT. According to IFTTT, "IFTTT can do anything!" (Dkt. No. 607-3 at 1). With less hyperbole, it claims to offer users "the best way to integrate apps, devices, and services," providing small software applications or "applets" that use a combination of "triggers" (if's) and "actions" (then's) to create automations (*ibid.*; Dkt. No. 607-2 at 1). By way of example, IFTTT applets can automate sending a notification if the International Space Station passes over one's house, sending an email if the forecast suggests it will rain the following day, or sending tracked hours to a calendar application if one is at work (Dkt. No. 607-3 at 2). An IFTTT user can use published IFTTT applets, like the applets just described, or create their own to control an array of integrated products, including those of Sonos and Google (Dkt. No. 607-4 at 1; Tr. 828:17–18).

From its inception through September 2020, IFTTT offered *all of its services for free*, with no limitations in terms of applet count or complexity. In September 2020, however, it introduced *paid subscription plans for its advanced functionalities* — almost one year *after* the hypothetical negotiation for the '966 patent, and a couple months before the hypothetical negotiation for the '885 patent (Malackowski Rpt. 84; Tr. 1129:25–1130:2, 1204:24–25). The parties stipulated that the hypothetical negotiations would have taken place when the patents issued in November 2019 and November 2020 for the '966 patent and the '885 patent, respectively (Dkt. No. 615 at 7).

[2] Breaking it down, he derived $12,246,294 in damages for infringement of the '885 patent, and $77,546,923 in damages for infringement of the '966 patent (Tr. 1136:22–1137:4). In his opening report, Mr. Malackowski derived $144,373,860 in damages for infringement of the '966 patent (Malackowski Rpt. 130). That number was never introduced into evidence, however, as Mr. Malackowski implemented quantitative adjustments in his reply report that decreased it to $77,546,923 (Malackowski Reply Rpt. 24).

Google filed two motions *in limine* to exclude evidence related to Sonos's damages theory (Dkt. Nos. 607, 610). According to Google, the theory was unreliable in light of its use of IFTTT as its foundation. In the first motion, Google sought to exclude the opening and reply reports and testimony of Mr. Malackowski, as well as the related report language and testimony of Dr. Almeroth. In the second motion, Google sought to exclude only select report language and testimony of Mr. Malackowski. Sonos opposed both motions (Dkt. Nos. 607-11, 610-6). It also filed a separate trial brief in support of its use of IFTTT (Dkt. No. 735).[3]

The final pretrial order deferred ruling on the motions, and both witnesses testified before the jury (Dkt. No. 660 at 2; Tr. 669:10–12, 1077:18–20). After the direct examinations and cross-examinations, a ruling from the bench struck Sonos's damages theory based on IFTTT as unreliable (Tr. 1402:20–1403:2). The final charge instructed the jury that it could not factor any information regarding IFTTT into its calculation of damages, including the damages figures that Mr. Malackowski derived. But it allowed the jury to consider his testimony unrelated to IFTTT and to use other evidence to calculate damages, such as admitted license agreements (Dkt. No. 762 at 21–22). The jury ultimately calculated a damages award of $35,507,183.40 for infringement of the '885 patent, having found no infringement of the '966 patent (Dkt. No. 774). For the record on appeal, this memorandum opinion provides the reasons for the ruling that struck all things IFTTT.

ANALYSIS

"[E]stimating a reasonable royalty is not an exact science." *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1296 (Fed. Cir. 2015). "[W]hile all approximations involve some degree of uncertainty, the admissibility inquiry centers on whether the methodology employed is reliable." *Ibid.* (citing *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 589–95 (1993)). "Rule 702 grants the district judge the discretionary authority, reviewable for its abuse, to determine reliability in light of the particular facts and circumstances of the particular case." *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 158 (1999).

[3] Unless otherwise indicated, all report and deposition excerpts referenced in this memorandum opinion were attached as exhibits to the briefing on the motions *in limine*.

"While questions regarding which facts are most relevant for calculating a reasonable royalty are properly left to the jury, a critical prerequisite is that the underlying methodology be sound." *Virnetx, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1328 (Fed. Cir. 2014). "[A] reasonable or scientifically valid methodology is nonetheless unreliable where the data used is not sufficiently tied to the facts of the case. Likewise, ideal input data cannot save a methodology that is plagued by logical deficiencies or is otherwise unreasonable." *Apple Inc. v. Wi-LAN Inc.*, 25 F.4th 960, 971 (Fed. Cir. 2022) (internal quotations and citations omitted).

The hypothetical negotiation "attempts to ascertain the royalty upon which the parties would have agreed had they successfully negotiated an agreement just before infringement began." *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324 (Fed. Cir. 2009). It is a well-established methodology for estimating a royalty. The hypothetical negotiation based on IFTTT, however, is not. Here, this methodology was unreliable for the following reasons.

First, IFTTT could not be used as a "benchmark" product in the reasonable royalty analysis. That a technical expert could jerry-rig this generic scripting application to approximate some claim limitations in no way shows that this application had a feature that was technologically comparable to the claimed invention.

Second, even assuming *arguendo* that IFTTT could be used as a benchmark product, a price eventually set for an optional add-on subscription plan could not be a starting point for the reasonable royalty analysis. The price had no relationship to the claimed invention.

Third, even assuming *arguendo* that the price could be a starting point, it was not apportioned to the incremental value of the claimed invention. The primary apportionments did not factor out the application's incomparable features and/or were not tied to the facts of the case.

1. IFTTT COULD NOT QUALIFY AS A BENCHMARK PRODUCT.

One way to calculate a reasonable royalty is to "value the infringed features based upon comparable features in the marketplace." *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1315 (Fed. Cir. 2014), *overruled on other grounds, Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015). Both sides recognize that the Federal Circuit has allowed the use of

"benchmark" products with technologically comparable features to inform a reasonable royalty analysis (Sonos IFTTT Trial Br. 1; Google JMOL #1 Br. 21 (each citing *id*. at 1318)). *See also i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 853 (Fed. Cir. 2010).[4]

According to Sonos, IFTTT was one such benchmark product with a technologically comparable feature, and this application could therefore be used to calculate a reasonable royalty (Sonos IFTTT Trial Br. 6–7). Dr. Almeroth provided the technical foundation. He opined that an IFTTT user could build applets that provide functionality that is technologically comparable to the claimed zone-scene technology (Almeroth Rpt. ¶ 798; Tr. 821:23–822:3, 829:8–22). As a proof of concept, he set up a first IFTTT applet with actions that allowed him to play music on a first set of Sonos speakers (*e.g.*, "Garden") and a second IFTTT applet with actions that allowed him to play music on a second set of Sonos speakers (*e.g.*, "Evening"), wherein the two sets "overlapped" (*i.e.*, shared at least one speaker), thereby mimicking the claims-in-suit (Almeroth Rpt. ¶¶ 798, 802–07; Tr. 826:11–18, 827:14–19; *see also* TX 442). According to Dr. Almeroth, his IFTTT applets were technologically comparable to the claimed invention because they customized and saved overlapping groups (*e.g.*, "Garden" and "Evening" shared one speaker), and because they caused playback to start on at least two speakers at the same time when a group was invoked (*e.g.*, "Garden" and "Evening" each had more than one speaker) (Almeroth Rpt. ¶ 814; Tr. 827:9–12, 22–25).

These IFTTT applets could not actually replicate the claimed zone-scene technology, however. As Dr. Almeroth himself acknowledged, his applets were not "configured for the

[4] More precisely, both sides recognize this *now*. Neither mentioned benchmark products with technologically comparable features in the briefing on the motions *in limine*. That briefing selectively quoted cases analyzing benchmark *licenses*, with alterations to make them fit products. For example, Google's first motion stated: "While a patentee may rely on comparable technology to support a proposed royalty, it has the 'burden to prove that the [technology is] sufficiently comparable' to the technology and value of the asserted patent." (Google MIL #1 Br. 3 (quoting *Lucent*, 580 F.3d at 1329)). Where Google inserted "technology is," *Lucent* included "licenses were" (*see also* Google MIL #1 Opp. 5 (quoting *Virnetx*, 767 F.3d at 1330)). Of course, one can "use the royalty rate from sufficiently comparable licenses" to calculate a royalty, but the Federal Circuit has distinguished this from "valu[ing] the infringed features based upon comparable features in the marketplace." *See Apple*, 757 F.3d at 1315. The parties incorporated the law on benchmark products with technologically comparable features in (unsolicited) later-filed briefs (*see* Sonos IFTTT Trial Br. 1–3, 6–7; Google JMOL #1 Br. 21).

synchronous playback of media," an important aspect of the invention described in the specification and covered by the claims (Almeroth Rpt. ¶ 815; Tr. 829:2–7; *see, e.g.*, '885 and '966 patents col. 3:9–12; '885 patent col. 12:19; '966 patent col. 12:12). He opined that the speakers grouped, saved, and invoked using an IFTTT applet would have had an echo caused by clock drift or differences in playback start time (Almeroth Rpt. ¶ 815; Tr. 922:14–923:16). This would certainly be annoying to a listener who could hear sound coming from more than one speaker. Nevertheless, Dr. Almeroth concluded that the applets' stab at replication of overlapping zone scenes was sufficient to show technological comparability (Almeroth Rpt. ¶ 816; Tr. 822:6–18, 829:3–7).

* * *

The thrust of Sonos's argument was as follows: because IFTTT was *capable* of customizing, saving, and invoking overlapping groups of speakers in a way that was comparable to the claimed technology, IFTTT was a benchmark product with a technologically comparable feature. But mere capability does not confer comparability.

Let's start with the caselaw. In all of the instances in which the Federal Circuit has allowed for the value of benchmark products with technologically comparable features to inform the reasonable royalty analysis, those products did not need to be separately configured in order to become benchmark products with technologically comparable features. Rather, they were benchmark products with technologically comparable features right out of the box, no assembly required. That is necessarily so. The idea behind using a benchmark product with a technologically comparable feature to calculate a reasonable royalty is that one can isolate the value of the technologically comparable feature by, *inter alia*, subtracting the value of other features. If there is no technologically comparable feature at the outset, subtracting the value of other features would not isolate the value of the technologically comparable feature, as required for calculating a reasonable royalty based on that value.

By way of example, in *Apple*, the Federal Circuit endorsed the use of the "Magic Trackpad" as a benchmark product for calculating a reasonable royalty for infringement of a patent that disclosed the use of finger contacts to control a touchscreen computer. 757 F.3d

at 1316. Like the asserted claims, the trackpad translated finger contacts into computer commands, including some of the same finger contacts and computer commands that were asserted. It did not need to be separately configured to do so. Meanwhile, in *i4i*, the Federal Circuit endorsed the use of XMetaL as a benchmark product for calculating a reasonable royalty for infringement of a patent that disclosed an improved method for editing documents containing markup languages like XML. 598 F.3d at 853–55. Like the asserted claims, this software processed and edited documents containing markup languages like XML. Again, it did not need to be separately configured to do so.

IFTTT was no such benchmark product. Unlike the asserted claims, it merely allowed users to create applets comprising chains of conditional "if" and "then" statements. Right out of the box, IFTTT did not customize, save, and invoke overlapping groups of speakers. (Nor did any published IFTTT applets customize, save, and invoke overlapping groups of speakers, for that matter.) In order to customize, save, and invoke overlapping groups of speakers, an IFTTT user would have had to create two applets comprising chains of conditional "if" and "then" statements that together customized, saved, and invoked overlapping groups of speakers. Whereas the Magic Trackpad was designed and marketed to translate finger contacts into computer commands, and XMetaL was designed and marketed to process and edit documents containing markup languages like XML, IFTTT was not designed and marketed to customize, save, and invoke overlapping groups of speakers. IFTTT was designed and marketed to "do anything!" with triggers and actions (Dkt. No. 607-3 at 1).

Indeed, there is no evidence on this record that IFTTT has *ever* been used to customize, save, and invoke overlapping groups of speakers by anyone other than Dr. Almeroth and the Sonos team. Mr. Malackowski confirmed this on the stand and in his depositions (Tr. 1147:13–1148:7, 1153:12–15; Malackowski Jan. 2022 Dep. 219:14–17; Malackowski Aug. 2022 Dep. 132:12–13). What's more, Dr. Almeroth's proof of concept demonstrated that IFTTT can only customize, save, and invoke overlapping groups of speakers in a crude way, and Mr. Malackowski testified that he did not expect consumers would actually use IFTTT as a substitute for this purpose (Tr. 1215:10–17; Malackowski Jan. 2022 Dep. 219:21–25;

Malackowski Aug. 2022 Dep. 132:13–17). Customizing, saving, and invoking overlapping groups of speakers was simply not a "feature" of IFTTT.[5]

To further illustrate, imagine a box of loose, conventional electronic parts, such as resistors, capacitors, transistors, diodes, earphones, knobs, meters, and wires. These parts could be configured to build radio transmitters and receivers, among hundreds of other things. (Perhaps a few readers will recall making radios and other such things using the all-in-one electronic project kits that were popular some decades ago.) But no one would say that a box of loose, conventional electronic parts could be a benchmark product for calculating the value of radio technology. Radio technology is not a "feature" of a box of loose, conventional electronic parts. One could not derive the value of radio technology by factoring out the value of other features, like the damages expert in *Apple* derived the value of the Magic Trackpad's translation of finger contacts into computer commands by factoring out the value of its wireless mouse functionality, for instance. *Apple*, 757 F.3d at 1316.

IFTTT is another box of parts, only digital ones, not analog ones. Yes, it could be configured to customize, save, and invoke overlapping groups of speakers, among "millions" of other things (Tr. 920:16–21, 1141:15–22). But no, IFTTT could not qualify as a benchmark product for calculating the value of customizing, saving, and invoking overlapping groups of speakers. Customizing, saving, and invoking overlapping groups of speakers was not an as-is "feature." One could not isolate the value of customizing, saving, and invoking overlapping groups of speakers by subtracting the value of other features.

It bears repeating that IFTTT was designed and marketed to "do anything!" (Dkt. No. 607-3 at 1). Allowing this generalist third-party scripting application to be a benchmark

[5] At trial, Mr. Malackowski testified that "[w]e can see on forums that people talk about using IFTTT for grouping speakers" and that "on the Sonos forum there are customers['] suggestions in that regard" (Tr. 1147:25–1148:1, 1216:2–3). There was nothing in his reports to support any of this, however. And, even if there was, the mere fact that some individuals suggested and talked about using IFTTT to group speakers is not evidence that these individuals actually used IFTTT to customize, save, and invoke overlapping groups of speakers. For what it is worth, the undersigned sustained Google's objection to the admission of the only (late-produced) forum post Sonos sought to introduce on this point, in which an individual said he used Lutron to group speakers, not IFTTT (Tr. 365:16–369:10).

product on account of a mere capability to be fashioned in a way that loosely approximates the claimed zone-scene technology simply "proves too much." Sonos would open the floodgates to using IFTTT as a benchmark product for calculating a reasonable royalty in almost every patent case involving software-based technology, because almost every software-based technology could be loosely approximated using IFTTT. This is the first case in which this unusual methodology has been proposed. It should be the last.

* * *

"When relying on *licenses* to prove a reasonable royalty, alleging a loose or vague comparability between different technologies or licenses does not suffice." *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 79 (Fed. Cir. 2012) (emphasis added). Indeed, the Federal Circuit has expressly warned against "us[ing] licenses with no relationship to the claimed invention to drive the royalty rate up." *Ibid*. (quoting *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 870 (Fed. Cir. 2010)). Otherwise, a patent owner "would be free to inflate the reasonable royalty analysis with conveniently selected licenses without an economic or other link to the technology in question." *Ibid*. (quoting *ResQNet.com*, 594 F.3d at 872). Surely the same warning should hold when relying on *products* to prove a reasonable royalty, and when using products with no relationship to the claimed invention to drive the royalty rate up. Otherwise, a patent owner would be free to inflate the reasonable royalty analysis with conveniently selected products without an economic or other link to the technology in question. This is what Sonos did here. IFTTT "simply ha[d] no place in this case." *ResQNet.com*, 594 F.3d at 871.

True, that a benchmark product is an imperfect benchmark product, or that there exists a better benchmark product, goes to evidentiary weight, not admissibility. *Apple*, 757 F.3d at 1319. That IFTTT could not qualify as a benchmark product at all, however, goes to admissibility, not evidentiary weight. District judges are admonished to be "gatekeepers." *See Daubert*, 509 U.S. at 596–97; *Kumho Tire*, 526 U.S. at 147. This gate should remain firmly closed.

2. IFTTT'S PRICE COULD NOT BE A STARTING POINT.

Sonos's damages theory based on IFTTT also failed on the economics. "[T]he trial court must carefully tie proof of damages to the claimed invention's footprint in the market place." *ResQNet.com*, 594 F.3d at 869. It was unable to do so here.

In brief, Mr. Malackowski used a $1.99 minimum monthly price eventually set for IFTTT's "Pro" subscription to establish a price that consumers ostensibly would have been willing to pay for IFTTT's technologically comparable "feature." With this price as a starting point, he then "apportioned down" to establish a royalty that Google ostensibly would have been willing to pay for the claimed zone-scene technology at the time of the hypothetical negotiations. But the fact that a Pro subscription has been offered for sale on the Google Play Store for a minimum monthly price of $1.99 does not mean that this price was a viable starting point for the reasonable royalty analysis. Mr. Malackowski's starting point rested on a series of unsupported assumptions.

To begin, Mr. Malackowski asked us to assume that a price eventually set for an IFTTT Pro subscription could be used to assess the value of the claimed technology at the time of the hypothetical negotiations. Yet IFTTT was *entirely free* at the time of the hypothetical negotiation for the '966 patent, when Sonos contends infringement began (Malackowski Rpt. 84–88; Tr. 1127:16–1128:2, 1131:1–9). There was no Pro subscription at that time. IFTTT did not roll out its add-on subscription plans until September 2020 — ten months after the hypothetical negotiation for the '966 patent in November 2019, and two months before the hypothetical negotiation for the '885 patent in November 2020 (Malackowski Rpt. 84; Tr. 1129:25–1130:2, 1204:24–25). According to Mr. Malackowski, Sonos and Google would have understood that IFTTT could not keep all of its offerings free forever, and the parties would have therefore negotiated a reasonable royalty at both hypothetical negotiations drawing upon on the minimum monthly price later set for a Pro subscription (Malackowski Rpt. 87; Tr. 1130:10–1131:2). But many applications *do* remain completely free forever. This is not something that Mr. Malackowski was qualified to speculate on, and there was nothing in the record to support his *ipse dixit*.

Next, Mr. Malackowski asked us to assume that a $1.99 minimum monthly price eventually set for an IFTTT Pro subscription could be used to establish the price that consumers would have been willing to pay for the claimed technology.[6] That is because a Pro subscription allowed for the use of multiple applets, and Dr. Almeroth demonstrated that consumers would need multiple applets to approximate the claimed technology (Malackowski Rpt. 87–88; Tr. 1125:23–1126:14, 1127:18–1128:8). Recognizing that a Pro subscription has allowed for the use of twenty applets, and that Dr. Almeroth demonstrated consumers would need at least two applets to approximate the claimed technology, Mr. Malackowski ultimately "apportioned down" this $1.99 starting price by 90% (Malackowski Rpt. 88; Tr. 1131:12–16). Yet "[b]eginning from a fundamentally flawed premise and adjusting it based on legitimate considerations specific to the facts of the case nevertheless results in a fundamentally flawed conclusion." *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1317 (Fed. Cir. 2011). Because IFTTT could be used to do an enormous number of things with twenty applets and two applets alike, the price of a Pro subscription had no relationship to the price that consumers would have been willing to pay for the technologically comparable "feature" in the first place. This price had no relationship to the price that consumers would have been willing to pay for one (potential) configuration of applets that could (crudely) customize, save, and invoke overlapping groups of speakers.

Truth be told, the $1.99 minimum monthly price was not even the price set by IFTTT for the use of twenty applets. According to Mr. Malackowski's report, the Pro subscription that IFTTT offered for a minimum monthly price of $1.99 allowed users to create unlimited applets (Malackowski Rpt. 84–85). It was not until IFTTT released an updated Pro subscription in November 2021 — well after the hypothetical negotiations — that this subscription plan

[6] For context, the Pro subscription was offered for a "pay-what-you-want," minimum monthly fee of $1.99 from September 2020 through October 2020 (Malackowski Rpt. 85). At the time of the hypothetical negotiation for the '885 patent in November 2020 through November 2021, the Pro subscription was priced at $3.99 per month. Between November 2021 and November 2022, it was apparently priced even higher. As of November 2022, the Pro subscription has been priced at $2.50 per month. According to Mr. Malackowski, to be conservative, he based his calculation on the lowest fee IFTTT offered for the Pro subscription (Malackowski Rpt. 87).

became limited to twenty applets (Malackowski Rpt. 85). In other words, the $1.99 minimum monthly price for a Pro subscription was actually the price set by IFTTT for the use of *unlimited* applets that could do *unlimited* things. This makes it all the more clear that the price had no relationship to the price that consumers would have been willing to pay for this one "feature."

Mr. Malackowski insisted that IFTTT was like a tube of glue (Tr. 1141:18–19, 1219:20–1220:11). His point was that a tube of glue can be used in an enormous number of ways, and that enormous number of ways is factored into what consumers are willing to pay for it. But one would never use the price of a tube of glue to value all that could be done with that tube of glue — from critical home repairs to whimsical art projects. Similarly, one could not use the price of IFTTT to value all that could be done with IFTTT — from tracking the International Space Station to customizing, saving, and invoking overlapping groups of speakers. At bottom, the price of an IFTTT Pro subscription had no relationship to the price that consumers would have been willing to pay for the claimed technology.

Additionally, the proof of concept that Dr. Almeroth presented to the jury was created recently, in the lead-up to trial, using a contemporary IFTTT Pro version application that was integrated with Sonos products and that offered pre-made actions for controlling them (*see* TX 442). But could that have even been done at the time of the hypothetical negotiations? Dr. Almeroth and Mr. Malackowski never told us when these pre-made actions for controlling Sonos products were incorporated into IFTTT. We know, however, that consumers could not customize, save, and invoke overlapping groups of Sonos speakers until summer 2020 — after the hypothetical negotiation for the '966 patent (Tr. 361:12–362:12; TX 6730). How could IFTTT have been used to customize, save, and invoke overlapping groups of Sonos speakers before overlapping groups of Sonos speakers could have been customized, saved, and invoked? On this basis, the relationship between the price of a Pro subscription and what consumers would have been willing to pay for the claimed technology was further strained.[7]

[7] In his opening report — but not in his testimony before the jury — Dr. Almeroth used IFTTT to group, save, and invoke a Google speaker using IFTTT's pre-made actions for controlling the

Finally, recall there was no evidence that anyone *actually used* IFTTT to customize, save, and invoke overlapping groups of speakers, let alone *paid* for such use (*see* Tr. 1147:23–25, 1215:13–17, 1216:1–2; Malackowski Jan. 2022 Dep. 219:14–25; Malackowski Aug. 2022 Dep. 132:12–17). And, no ordinary consumer would have been expected to use or pay for a Pro subscription to customize, save, and invoke overlapping groups of speakers, because such groups could be (more effectively) customized, saved, and invoked using embedded technology (Tr. 1147:1–4, 1215:10–17; Malackowski Jan. 2022 Dep. 219:21–25; Malackowski Aug 2022 Dep. 132:13–17). If no ordinary consumer would have been expected to use or pay for IFTTT to customize, save, and invoke overlapping groups of speakers, it cannot be that the price of a Pro subscription had any relationship to the price that consumers would have been willing to pay to customize, save, and invoke overlapping groups of speakers. This price could not be a starting point for the reasonable royalty analysis.

3. APPORTIONMENTS WERE UNTENABLE.

Even forgiving all of the foregoing, Sonos failed to prove that this price was apportioned to the incremental value of the claimed invention, as required. *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1302 (Fed. Cir. 2018). Mr. Malackowski did not meaningfully and fairly factor out incomparable features and tie his apportionments to the facts of the case. Thus, the price was not apportioned such that it could establish what Google would have been willing to pay for the claimed invention in the hypothetical negotiations. This memorandum opinion will first summarize all of Mr. Malackowski's apportionments and then address problems that remain.

Starting with a $1.99 minimum monthly fee for a Pro subscription, Mr. Malackowski converted it to a $5.97 quarterly fee and apportioned as follows:

- *First*, as mentioned above, he apportioned the fee down by 90%, recognizing that the "comparable technology" could be obtained by using two of the twenty applets that a Pro subscription allowed: $0.60 per quarter.

Spotify application (Almeroth Rpt. ¶ 808). Although there is evidence in this record that consumers could customize, save, and invoke overlapping Google speakers as early as December 2015 (Tr. 1237:24–1283:3), again, we do not know when the pre-made actions that allowed for controlling Google speakers were incorporated into IFTTT.

- *Second*, factoring in the average lifetime of a smartphone (ten quarters) and the weighted average cost of capital at the time of the hypothetical negotiations (7.4% and 8.8% for the '885 and '966 patents, respectively), he calculated the net present value of the claimed zone-scene technology per device: $4.27 and $4.04 for the '885 and '966 patents, respectively.

- *Third*, he further apportioned the net present value to account for survey data showing 29% of people in the United States who own smart speakers own three or more, as required to take full advantage of the claimed zone-scene technology: $1.24 and $1.17 for the '885 and '966 patents, respectively.

- *Fourth*, in consideration of *Georgia-Pacific* factors 13 and 15, he opined that Sonos would have acted similarly to an app developer who wished to provide its technology for a fee. He therefore applied a further 30% apportionment down based on Google's 70%/30% revenue split with developers who sell applications that earn over one million dollars on the Google Play Store per year: $0.87 and $0.82 for the '885 and '966 patents, respectively.

- *Finally*, he multiplied the resulting per device royalty rates by the number of accused products sold during the respective damages periods to reach $90 million in total damages.

(Malackowski Rpt. 8, 87–90, 119–25; Malackowski Reply Rpt. 24; Tr. 1134:13–1137:4).

This memorandum opinion has already spoken to why apportioning down by 90% to account for the use of two applets instead of twenty applets failed to factor out incomparable features. At first glance, the apportionment seemed conservative, but it was far too liberal. Briefly here, it did not account for the enormous number of uses of even two IFTTT applets. A true apportionment would spread the Pro subscription cost over that enormous number of uses. But that enormous number of uses was actually unlimited at the time of the hypothetical negotiations, when the Pro subscription provided unlimited applets. For a convenient calculation, Mr. Malackowski mixed metaphors, apportioning the $1.99 price of *yesterday's* Pro subscription based on the twenty applets allowed by *today's* Pro subscription, which did not make any sense. Let's close with a discussion of the two other primary apportionments: those based on the app developer/app store revenue split and the survey data.

* * *

In order to show that the price consumers would have been willing to pay for the claimed zone-scene technology could be adjusted to reflect the price that Google would have been willing to pay to license the patents-in-suit, Mr. Malackowski looked to Google's operation of

the Google Play Store. According to Mr. Malackowski, during the hypothetical negotiations, Sonos would have positioned itself as an app developer who wished to provide its technology for a fee. Accordingly, he found a 30% apportionment down appropriate, based on Google's 70%/30% revenue sharing agreement with app developers who offer applications earning over one million dollars annually on Google's app store (Malackowski Rpt. 120; Tr. 1091:14–18, 1211:18–1212:11).

This analogy does not fit. Mr. Malackowski likened Sonos to the app developer, giving it a 70% cut, and likened Google to the owner of the app store, giving it a 30% cut. But the app developer here was Google, not Sonos. Google was on both sides of the equation. It was Google who developed the Google Home application, which was used to control the accused products, not to mention smart lights, thermostats, cameras, televisions, and an array of other devices. As shown by the testimony of Google engineers Kenneth MacKay and Tavis Maclellan, Google spent between six to nine months designing, developing, and testing the implementation of Google Home's speaker groups functionality, to say nothing of its other functionalities (Tr. 1237:24–1238:5, 1299:6–9). With one arguable exception, Sonos did none of the innovating of this application.

The one arguable exception is that Sonos innovated the claimed invention, which was part of the Google Home application. Thus, we must assume that Google needed licenses for Google Home to practice the two patents-in-suit. So, in addition to the 30% cut, the bulk of the 70% cut would have gone to Google as well. Only a reasonable royalty would have gone to Sonos, commensurate with Sonos's share of the overall innovation. Mr. Malackowski uses a clever analogy to lead the reader to believe that Sonos deserves the full app developer share. But Google did its share of the innovating too.

Moreover, recognizing that the Google Play Store revenue split is not specific to Sonos or the technology claimed by the patents-in-suit, it is unclear what connection this revenue split had to the facts in this case beyond that this case happens to involve Google and that Google happens to own an app store. Indeed, applying this 70%/30% split appears almost as arbitrary as applying the "25 percent rule of thumb" that the Federal Circuit rejected in *Uniloc*. In that

case, the Federal Circuit found a blanket royalty split problematic because it "d[id] not say anything about a particular hypothetical negotiation" and "would predict [] the same 25%/75% royalty split" each time, regardless of the parties and technologies involved. *Uniloc*, 632 F.3d at 1317. By the same token, Mr. Malackowski's split would predict the same 70%/30% apportionment each time Google is an alleged infringer, regardless of the patent owners and claimed technologies involved.

There is no evidence on this record that Google would agree to such terms in the context of patent licensing broadly or in the context of the two specific patents-in-suit. A patent licensing agreement is fundamentally different than a commercial arrangement for commissions based on the use of app store infrastructure. Because patent owners and app developers enter their respective negotiations with different goals, it strains credulity that they would arrive at the same revenue split. Reductively, a patent owner seeks payment for threatened or actual injury to its rights in its invention. An app developer pays to make its invention more widely available. Today, the hypothetical "negotiation" between an app developer and an app store is hardly a negotiation at all. Mr. Malackowski's apportionment based on the app developer/app store revenue split did not factor out incomparable features and was insufficiently tied to the facts of the case.

* * *

Meanwhile, recognizing that, of those who have smart speakers, it is only those who have at least three who can use zone-scene technology, Mr. Malackowski apportioned the net value of the claimed invention down 71% based on an existing survey showing 29% of people in the United States who own smart speakers own three or more smart speakers (Malackowski Rpt. 89–90; Tr. 1131:22–1132:7).

But note this apportionment would not factor out those individuals who have a Google speaker and two Sonos speakers, which could not be added to overlapping groups using Google Home (*see* Tr. 1309:15–1310:7). Similarly, it would not factor out those individuals who have three Sonos speakers, which could not be added to overlapping groups using Google Home (*ibid.*). Most flagrantly, it would not factor out those individuals with Google Home

who do not have any speakers at all. Contrary to what was said in Sonos's trial brief (Sonos IFTTT Trial Br. 3), Mr. Malackowski's opening report and testimony (and the survey data) clearly demonstrated that the 29% referred not to the percentage of households that have three or more smart speakers, but to the percentage of *households with smart speakers* that have three or more smart speakers (Malackowski Rpt. 90 n.528; Tr. 1132:1–4). Sonos even said so in its motion *in limine* briefing (*see* Google MIL #1 Opp. 4). As such, Mr. Malackowski's apportionment based on the survey data likewise failed to factor out incomparable features.

In response to a question from Google's counsel asking whether he did "a survey of people who own three or more speakers to see how many of them group their speakers," Mr. Malackowski said, "[o]f course not" (Tr. 1152:8–9). But this was not a matter of course. Compare the survey used to apportion in this case with the survey used to apportion in *i4i*, a case in which an award was calculated based on answers to forty tailored questions. 598 F.3d at 855. Whereas the survey used by Mr. Malackowski provided a very coarse estimate of how many customers could conceivably find the claimed invention valuable, the survey used by his counterpart in *i4i* specifically asked customers in the field how many actually used the infringing feature. Mr. Malackowski could have, and should have, tried harder.

CONCLUSION

The imagination of trial lawyers and their paid "experts" never sleeps in search of damages theories that reach stratospheric (or subterranean) levels yet, at first blush, have surface plausibility. It is incumbent on district judges, as gatekeepers, to determine whether surface plausibility is really sleight of hand and smoke and mirrors. This was sleight of hand and smoke and mirrors.

To the extent stated herein, and only to the extent stated herein, Google's first motion *in limine* was **GRANTED**. Google's narrower second motion *in limine* was **DENIED AS MOOT**.

Dated: June 9, 2023.

WILLIAM ALSUP
UNITED STATES DISTRICT JUDGE